

Abstract of the Disclosure

A local area network is provided where an OFDM station and DSSS/CCK station coexist. During a contention-free period both stations operate under the point coordination function rules as defined in the IEEE 802.11 specification. Both stations transmit data when polled by the access point. The contention-free period comprises a sub-contention period during which only the OFDM station communicate. During the sub-contention period the OFDM station operates under the distributed coordination function while the DSSS/CCK station waits to be polled by the access point before starting to communicate.